

Sub A1

What is claimed is:

1. A device for separating specific target microorganisms from suspension containing mixed groups of microorganisms, comprising:
 - a plurality of beads coated with at least one antibody material to capture the target microorganisms; and
 - an enclosure made of a grid material enclosing said beads, with a pore size smaller than the size of said beads and larger than the size of the microorganisms.
2. The device of claim 1 wherein said beads are made of resinous material.
3. The device of claim 1 wherein said beads are made of non resinous material.
4. The device of claim 1 further comprising means to agitate said enclosure in the suspension.
5. A method of separating target microorganisms from a suspension containing mixed groups of microorganisms, comprising:
 - immersing a plurality of beads coated with at least one antibody material into the suspension, said beads being held by an enclosure made of a grid material with a pore size smaller than the size of said beads and larger than the size of the microorganisms, thereby allowing the capture of the target microorganisms by said beads; and
 - washing said beads to remove organisms not bounded to said beads, after pulling said enclosure from the suspension.
6. The method of claim 5 wherein at least one detergent is applied in said washing.
7. The method of claim 5 further comprising agitation of said enclosure holding said beads in the suspension.

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Sub A)

8. The method of claim 7 wherein the time period of agitation is at least 30 minutes.

5 9. The method of claim 7 wherein the time period of agitation extends for several hours.

10. The method of claim 5 including the addition of at least one detergent to the suspension to decrease adsorption of non-specifically bound cells.

11. The method of claim 5 including the subsequent step of immersing the enclosure and beads in a new growth broth.

12. The method of claim 11 including the addition of an indicator material to the new growth broth. *dyes*

13. The method of claim 5 including the subsequent step of separating the beads from the enclosure followed by at least one test to reveal the microorganisms of interest.

15

(JMD\Eden - p.7a to Pat. Applic.)